



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

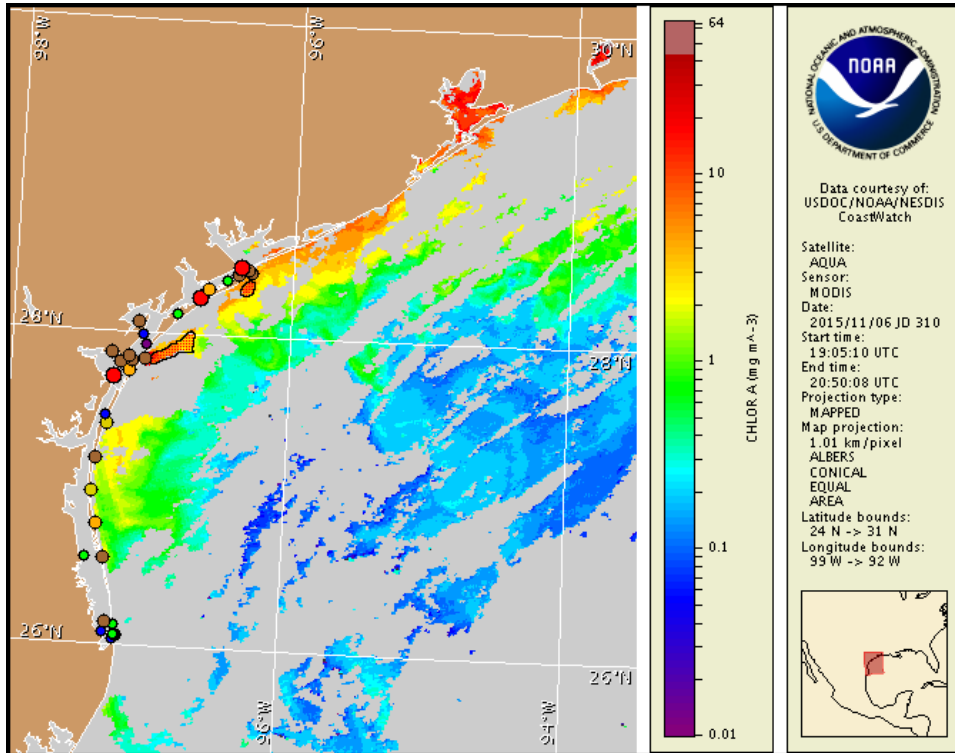
Monday, 09 November 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, November 5, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from October 30 to November 6: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

<http://www.tpwd.state.tx.us/landwater/water/enviroconcerns/hab/redtide/status.phtml>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

Karenia brevis (commonly known as Texas red tide) ranges from not present to high concentrations along the Texas coast from Matagorda Bay to the Rio Grande. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for Monday, November 9 through Thursday, November 12 is listed below:

Region: Forecast (Duration)

Matagorda Peninsula region: Low (M-W), Very Low (Th)

Bay region-Matagorda Bay: High (M-Th)

Bay region-San Antonio to Espiritu Santo Bay: High (M-Th)

Bay region-Aransas Bay to Aransas Pass: Low (M-Th)

Bay region-Corpus Christi Bay: High (M-Th)

Aransas Pass to PINS region: Low (Th-M)

Bay region-Upper Laguna Madre: Very Low (M-Th)

Padre Island National Seashore region: Moderate (M-Th)

Mansfield Pass to Beach Access 6 region: Moderate (M-Th)

Bay region-Lower Laguna Madre to Laguna Vista: Low (M-Th)

Beach Access 6 to Rio Grande region: Very Low (M-Th)

All Other Texas Regions: None expected (M-Th)

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Dead fish and discolored water have been reported from Corpus Christi Bay.

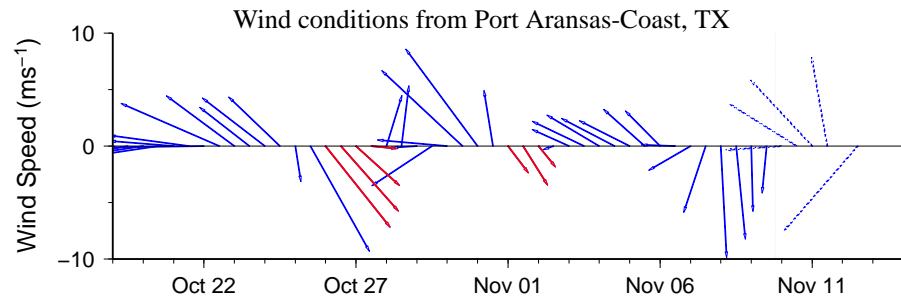
Analysis

Karenia brevis concentrations range from 'background' to 'high' from Matagorda Bay to the Rio Grande. Recent sampling has confirmed the presence of up to 'high' *K. brevis* concentrations within Matagorda and San Antonio Bays, 'low a' concentrations along-shore Matagorda Peninsula, up to 'low a' concentrations in Aransas Bay, up to 'high' concentrations in Corpus Christi Bay, 'very low b' concentrations within the Upper Laguna Madre, and 'very low a' to not present near Brazos Santiago Pass (TPWD; 11/2-4). Samples received from alongshore Padre Island National Seashore to South Padre Island continue to indicate that up to 'medium' *K. brevis* concentrations are present (TPWD; 11/3-4). Reports of dead and distressed fish were received last week from Matagorda Bay near the jetties at Fisherman's Cut and Port O'Connor. Dead fish and discolored water were reported in Corpus Christi Bay near the mouth of Oso Bay and Shamrock Island (TPWD; 11/6). Detailed sample information and a summary of impacts can be obtained through Texas Parks and Wildlife Department at: <http://www.tpwd.state.tx.us/landwater/water/enviroconcerns/hab/redtide/status.phtml>. For information on area shellfish restrictions, contact the Texas Department of State Health Services.

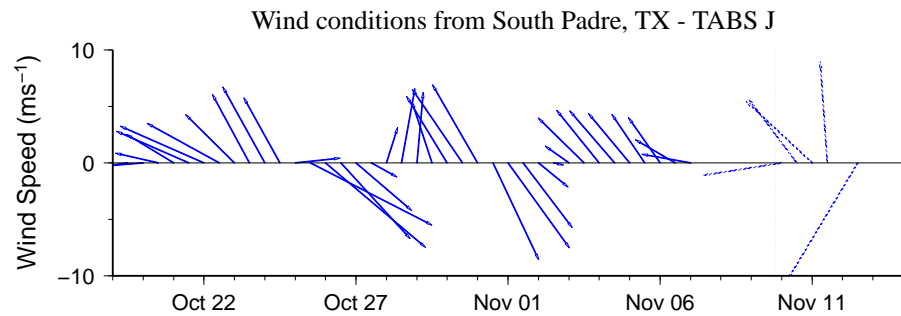
In recent MODIS Aqua imagery (11/6, shown left) elevated to high chlorophyll (2-14 $\mu\text{g/L}$) is visible in patches along- and offshore the Texas coast from San Luis Pass to the Rio Grande.

Forecast models based on predicted near-surface currents indicate a maximum bloom transport from coastal sample locations of 150km south from Pass Cavallo, 110km south from Aransas Pass, and 140km south from Brazos Santiago Pass from November 6 to November 12.

Keeney, Derner



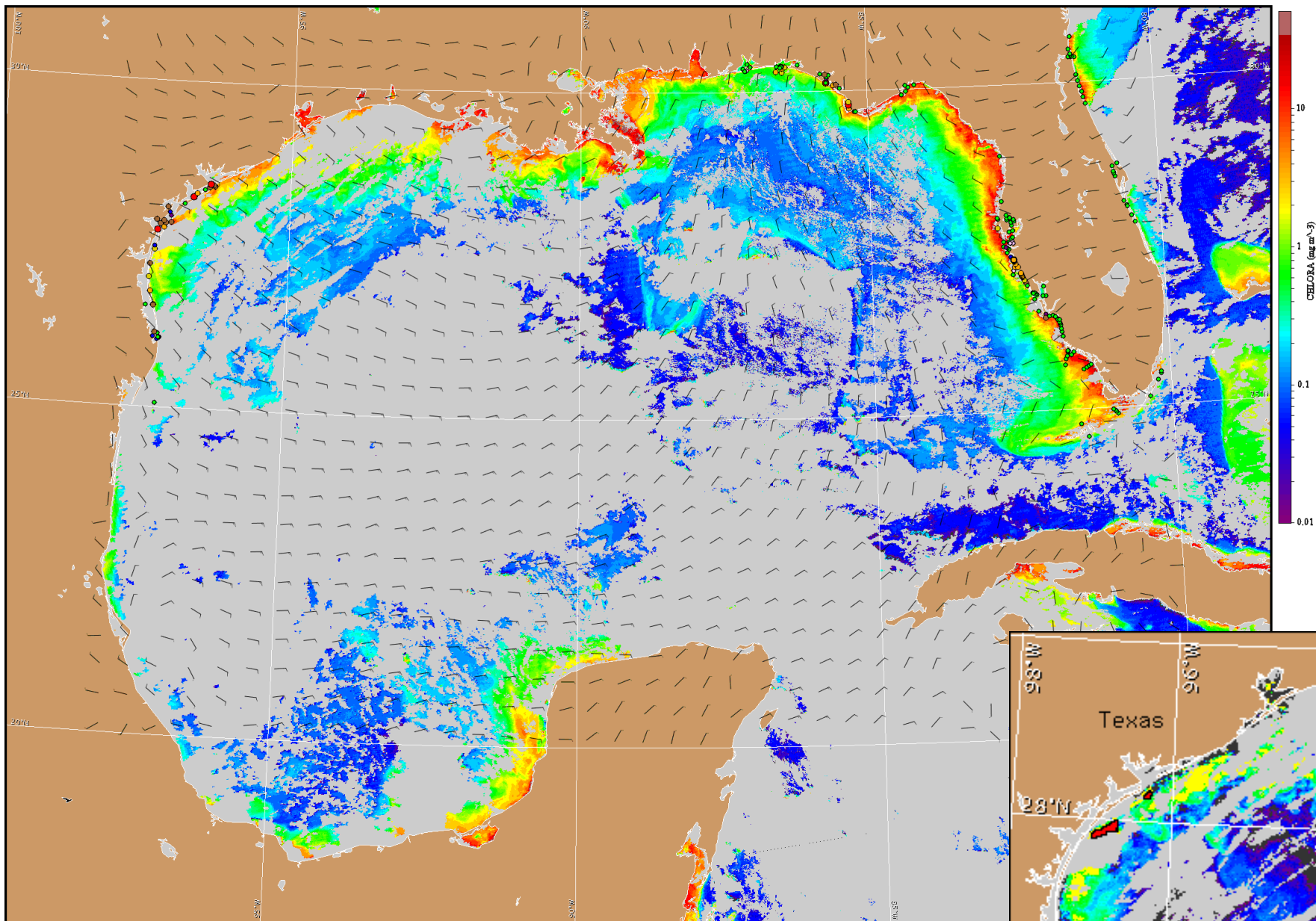
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Wind Analysis

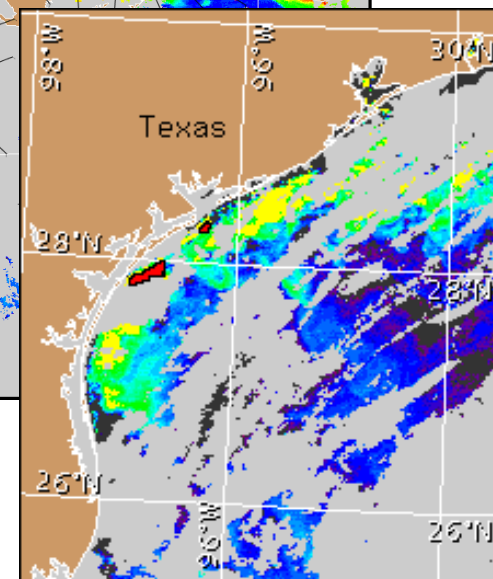
Port Aransas to Baffin Bay: Northeast winds (5-10kn, 3-5m/s) today shifting southeast tonight. Southeast winds (5-15kn, 3-8m/s) Tuesday. South winds (10-20kn, 5-10m/s) Wednesday, shifting to west winds (10-15kn, 5-8m/s) Wednesday night. Northeast winds (15-20kn, 8-10m/s) Thursday.

Port Mansfield to the Rio Grande: Northeast winds (7-11kn, 4-6m/s) today, becoming east (7-12kn, 4-6m/s) tonight. Southeast winds (7-18kn, 4-9m/s) Tuesday. South winds (7-20m/s 4-10m/s) Wednesday. Northeast winds (15-20kn) Thursday.



Satellite chlorophyll image and forecast winds for November 10, 2015 12Z with points representing cell concentration sampling data from October 30 to November 6: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf



Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).